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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,067

10/02/2003

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117390

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05/16/2007

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ALEXANDRIA, VA 22320

EXAMINER

DUONG, DIEU HIEN

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/676,067

Applicant(s)

MATSUEDA ET AL.

Examiner

Dieu Hien T. Duong

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/19/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to Applicants' Amendment filed on March 07, 2007. In virtue of this amendment, claims 13-14 are added; and thus, claims 1- 14 are currently presented in the instant application.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on March 19, 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is considered by the examiner.

Claim Objections

2. Claim 13 is objected to because of the following informalities:

Claim 13, line 3, - -pixel- - should be added before "pitch".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2 and 4-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, the recitation "a combination being determined such that the sum of the widths of a plurality of lines formed in one line forming region is approximately the same as that of the sum of the widths of a plurality of lines formed in

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another line forming region" in lines 9-11, renders the claim indefinite since it is not clear how a combination being determined.

Claims 2, 4, 11 and 12 are rejected for similar subject matter to claim 1.

Claims 5-10 and 13-14 are rejected since they are dependent on claims 2 and 1.

5. Claim 6 recites the limitation "the electric power lines" in 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 7-8 are rejected since they are dependent on claim 6.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 4-5, 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Komiya et al. (US 2003/0076046 A1), hereinafter "Komiya".

Regarding claim 1, as best understood, Komiya discloses, in Figures 4-5 and page 5, par. [0067], an electro-optical device, comprising an electric power supply circuit (180); a plurality of pixels disposed in the form of a matrix, including electro-optical devices driven by receiving electric power from the electric power supply circuit (Fig. 5), the plurality of pixels making up a plurality of pixel groups formed of a series of pixels arrayed in at least one direction of the row direction and the column direction (Fig.

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5), line forming regions (183, D) being formed between adjacent pixel groups of the plurality of pixel groups, and the line forming regions (183, D) being formed with generally the same width and inherently a combination being determined such that a sum of widths (183, D) of a plurality of lines formed in one line forming region is approximately the same as that of a sum of widths of a plurality of lines formed in another line forming region (183, D).

Regarding claim 2, as best understood, Komiya discloses, in Figures 4-5 and page 5, par. [0067], an electro-optical device comprising a plurality of scan lines (G); a plurality of data lines (D); a plurality of pixels (Fig. 5), disposed at portions corresponding to intersections of the scan lines (G) and the data lines (D), including electro-optical devices; and a plurality of electric power lines (183) to supply driving voltage to the electro-optical devices; the plurality of pixels making up a plurality of pixel groups formed of a series of pixels arrayed in at least one direction of the row direction and the column direction (Fig. 5), a plurality of line forming regions (183, D) being formed between adjacent pixel groups of said plurality of pixel groups, and at least two lines (183, D) selected from at least one electric power line of the plurality of electric power lines (183), at least one scan line of the plurality of scan lines, and at least one data line of the plurality of data lines (D), being formed in at least one line forming region of the plurality of line forming regions; and inherently a combination being determined such that a sum of widths (183, D) of a plurality of lines formed in one line forming region is approximately the same as that of a sum of widths of a plurality of lines formed in another line forming region (183, D).

Claim 4 is rejected for similar subject matter to claim 2.

Regarding claim 5, as applied to claim 1, Komiya discloses, in page 5, par. [0067], the line forming regions being formed with generally the same width.

Regarding claim 9, as applied to claim 1, Komiya discloses, in Figures 4-5 and par. [0048], the electro-optical device being an electro-luminescence device (160).

Claim 10 is rejected for similar subject matter to claim 1.

Claim 11 is rejected for similar subject matter to claim 1.

Claim 12 is rejected for similar subject matter to claim 2.

Regarding claim 13, as applied to claim 1, Komiya discloses, in Figures 4-5, each of the line forming regions being formed in at least one direction of the row direction and the column direction with generally the same pixel pitch.

Regarding claim 14, Komiya discloses, in Figures 4-5, the combination of the plurality lines being disposed periodically and repeatedly in at least one direction of the row direction and the column direction.

8. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Nara et al. (US 6,633,135 B2), hereinafter "Nara".

Regarding claim 3, Nara discloses, in Figure 1, an electro-optical device comprising a plurality of scan lines (VG); a plurality of data lines (VD); a plurality of pixels (11), disposed at portions corresponding to intersections of the scan lines (VG) and data lines (VD) including electro-optical devices; and a plurality of electrical power lines (VLC) to supply driving voltage to the electro-devices; the plurality of pixels (11) making up a plurality of pixel groups formed of a series of pixels arrayed in at least one

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direction of the row direction and the column direction, a plurality of line forming regions (VG, VLC) being formed between adjacent pixel groups of the plurality of pixel groups, and both at least one electric power line (VLC) of the plurality of electric power lines and at least one scan line (VG) of the plurality of scan lines being formed in at least one line forming region of the plurality of line forming regions.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiya et al. (US 2003/0076046 A1) in view of Yamazaki et al. (US 6,825,820 B2), hereinafter "Komiya" and "Yamazaki".

Regarding claim 6, Komiya discloses every feature of claimed invention as expressly recited in claim 1, except for the electro-optical devices being operated with each different driving voltages; and the electric power lines to supply voltage to the electro-optical devices being formed with different widths corresponding to said driving voltage.

Yamazaki discloses, in Figure 1B and page 6, lines 5-15, the electro-optical devices being operated with each different driving voltages; and the electric power lines

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to supply voltage to the electro-optical devices being formed with different widths corresponding to the driving voltage.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Komoya's display device by using the electric power lines with different widths to maintain a balance in the magnitudes of current flowing into the EL elements of each colors since using the electro-optical devices being operated with each different driving voltages and the electric power lines to supply voltage to the electro-optical devices being formed with different widths corresponding to the driving voltage for the stated purpose has been well known in the art, as evidenced by the teaching of Yamazaki (col. 3, lines 62-67).

Regarding claim 7, as applied to claim 6, Yamazaki discloses, in Figure 1B, the electro-optical device being a light-emission device and the electric power lines being formed with different widths corresponding to the emission light color of said light-emission device.

Regarding claim 8, as applied to claim 7, Figure 1B of Yamazaki discloses the color of the light which is to be emitted being at least one of red, green, and blue.

Response to Arguments

11. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new grounds of rejection.

Inquiry

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu Hien T. Duong whose telephone number is 571-

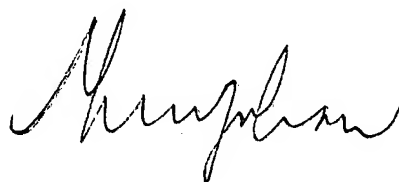
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272-8980. The examiner can normally be reached on Monday - Friday, from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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DD



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PRIMARY EXAMINER